

HOW TO SERVICE NOVA CHUCKS

⚠ SAFETY WARNING

Safety glasses must be worn when dealing with snap rings on the chucks. Snap rings can fly off in any direction. Use caution and wear safety glasses.

- **Note:** *Remove jaws or any other accessories attached on the chucks before disassembling the chucks. Wipe/blow off visible dust from the chucks before disassembly.*

Preparation:

Before starting the disassembly, lay a disposable thick towel or cloth on top of the working area as the disassembly process can get messy. The towel will protect the chuck body during this process.

This guide outlines the disassembly, cleaning and reassembly for:

- Precision Midi
- G3
- SuperNOVA2
- Titan

NOVA G3 Chuck – Disassembly

Tools Required:

1. External Circlip Pliers
2. Disposable Rag

STEPS	DESCRIPTION	IMAGE
1.	Lay the chuck face down. The jaw slides can be at any position.	 A top-down view of the NOVA G3 chuck with its face down. The central threaded hole and the surrounding jaw slides are visible.
2.	Use the external snap ring plier to remove the retaining ring as shown in the image. ⚠️ WARNING: Use extreme caution when with circlips. Wear safety glasses for this procedure.	 A close-up view of the chuck with external circlip pliers being used to remove the retaining ring from the side.
3.	Once the retaining ring is removed, the scroll ring can be removed from the chuck body. Tip the chuck body over and the scroll ring should fall out from the body.	 A hand is shown tipping the chuck body over, and the scroll ring is seen falling out from the side.

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NOVA G3 Chuck – Disassembly continued

STEPS	DESCRIPTION	IMAGE
4.	<p>After removing the scroll ring, the jaw slides will release.</p> <p><i>Before sliding the jaw slides out, mark with a permanent marker since each jaw slide will have a corresponding slideway to it. #1 jaw slide fit where there is a dimple.</i></p> <p>Remove the jaw slides out from the body by sliding it outwards.</p>	
5.	<p>Make sure you have all parts:</p> <ol style="list-style-type: none">1. Chuck Body2. Scroll Ring3. Retaining ring (EC48)4. Jaw Slides 1, 2, 3, 4	

NOVA G3 Chuck – Cleaning

After the chuck has been disassembled, each individual part can be cleaned out to remove any debris and excessive rust. Check for any defects on the parts at this stage (e.g. cracks, chips, deformation, etc).

STEPS	DESCRIPTION	IMAGE
<p>1.</p>	<p>Use a disposable cloth/ towel to wipe off much of the visible dirt as possible on each part.</p> <p><i>Procedure should be carried out on all main parts of the chuck (i.e. scroll ring, jaw slides and chuck body).</i></p>	
<p>2.</p>	<p>To remove built up grime, apply a degreaser/rust remover (e.g. WD40) on each part. Leave on for at least two hours (or as directed on product instructions).</p>	
<p>3.</p>	<p>Use a wired brush to remove the rust and grime.</p> <p>Make sure to run the brush in between the slits of the scroll ring and jaw slides to get to the hard to clean areas.</p>	
<p>4.</p>	<p>Use a clean disposable cloth/ towel to wipe the part after brushing.</p> <p>The parts should feel dry and shouldn't leave any sticky residue on your fingers.</p>	

NOVA G3 Chuck – Reassembly

Once all the parts are cleaned and free of any debris on the surface, the chuck can be reassembled. Before assembling the chuck back together, check for any defects. If there is a visible defect (e.g. cracks, chips, deformation etc) please contact our customer service at service@teknatool.com

STEPS	DESCRIPTION	IMAGE
<p>1.</p>	<p>Before reassembling the chuck, apply a generous amount of lubricant to all surfaces that come in contact with other parts.</p> <p>We recommend applying the lubricant (before assembly) on the inner surface of the chuck body as well as the jaw slide slots . Be sure to apply lubricant on both spiral teeth and gear teeth sides.</p>	
<p>2.</p>	<p>Reinsert the jaw slides back into its original slots. Looking from the front, the jaw slide number should be counting up from #1 in the clockwise direction.</p>	

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G3 Chuck – Reassembly continued

STEPS	DESCRIPTION	IMAGE
3.	<p>Place the jaw slides in the centre, forming a small square in the middle.</p> <p>Flip the chuck face down (make sure the jaw slides do not move). If the jaw slide moves, adjust it to form the square in the centre.</p>	
4.	<p>Slide the scroll ring back into the chuck body. Once in place, rotate the scroll ring until it engages with the jaw slides.</p> <p>You should feel the scroll rings engage as it drops into place, exposing the slot where the snap ring will fit. Alternatively, you will see the jaw slides moving by rotating the scroll ring when it engages.</p>	
5.	<p>To check whether the jaw slides correctly match up with the centre, rotate the scroll ring with the chuck.</p> <p>If the jaw slides match up at the centre by forming a square, place the snap ring back on to complete the assembly process.</p>	

Chucks Parts List

SKU	Thread Size	PARTS LIST		
SKU 48111 Precision Midi Direct Thread	1" x 8 TPI	1.	48100	Chuck Body
		2.	48116	Scroll Ring
		3.	23051 23052 23053 23054	Jaw Slides
		4.	EC48	36mm External Circlip
SKU 48232 G3 Direct Thread	1" x 8 TPI	1.	48206 (Insert) 48207 (Direct)	Chuck Body
		2.	23082	Scroll Ring
SKU 48202 G3 Insert Type	M38 x 3.5	3.	23051 23052 23053 23054	Jaw Slides
		4.	EC48	External Circlip
SKU 23062 SuperNOVA2 Direct Thread	1 ¼" x 8tpi	1.	23049 (Insert) 23061 (M33)	Chuck Body
		2.	23048	Back Cover
		3.	23082	Scroll Ring
SKU 23055 SuperNOVA2 Insert Type	M38 X3.5	4.	23051 23052 23053 23054	Jaw Slide #1~#4
		5.	23081	Pinion Gear
		6.	EC48	External Circlip
SKU 13060 – Titan III Direct Thread	1 ¼" x 8tpi	1.	13038 (Normal) 13039 (Europe)	Chuck Body
		2.	13003	Back Cover
		3.	13035	Scroll Ring
SKU 13061 – Titan III Europe Version Direct Thread	M33 x 3.5	4.	1339011 1339012 1339013 1339014	Jaw Slide #1~#4
		5.	13036	Pinion Gear
		6.	EC48	External Circlip
		7.	13004	Fastening Screw
		8.	LSM4N	Position Screw